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Docket No.: DE020252 US

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In the Claims:

This listing replaces all prior versions.

1. (Previously Presented) An integrated circuit having
a system base chip that has basic functions for a transmitting and/or receiving
system for a vehicle data bus, namely at least a system voltage supply, a system reset and
a monitoring function,
an interface circuit that, in a self-contained fashion, runs at least parts of a data
bus protocol, and in particular the LIN (Local Interconnect Network) protocol, that
performs detection of the bit-rate of received data, and that is capable of passing on at
least one received or transmitted byte,
a serial/parallel converter that makes use in its conversion of the bit-rate detected
by the interface circuit.
2. (Previously Presented) An integrated circuit as claimed in claim 1, characterized in that
there is provided in the integrated circuit an R/C oscillator that acts as a clock-signal
source and as a timebase for the bit-rate detection.
3. (Previously Presented) An integrated circuit as claimed in claim 2, characterized in that
the clock signal generated by the R/C oscillator may also be provided to circuits outside
the integrated circuit, and in particular to a microprocessor.
4. (Previously Presented) An integrated circuit as claimed in claim 1, characterized in that
the interface circuit may also pass on complete messages.
5. (Previously Presented) An integrated circuit as claimed in claim 1, characterized in that
the interface circuit performs buffer-storage of data received or to be transmitted.
6. (Previously Presented) An integrated circuit as claimed in claim 1, characterized in that
the serial/parallel converter converts serial data conforming to the SCI/UART (Serial
Communication Interface/Universal Asynchronous Receiver Transmitter) interface
standard into parallel data, or vice versa.